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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,554	08/07/2001	James William Otter	60246-145/8674	6915
26096	7590	08/12/2004	EXAMINER	
CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			JACKSON, MONIQUE R	
			ART UNIT	PAPER NUMBER
			1773	

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary**Application No.**

09/923,554

Applicant(s)

OTTER, JAMES WILLIAM

Examiner

Monique R Jackson

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Upon reconsideration, the finality of prior office action dated November 14, 2003 has been withdrawn based on Applicant's arguments filed May 26, 2004. Any inconvenience to the Applicant is regretted.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

3. Claims 1, 3-7, and 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Bergstrom et al (USPN 4,990,383.) Bergstrom et al teach a plastic coated steel tube and a method for preparing the coated tube wherein the steel tube is first coated with a layer of polyolefin that has been modified with a hydrolyzable silane such as an ethylene terpolymer including an organosilane compound, preferably an unsaturated alkoxy silane, grafted or copolymerized within the ethylene polymer, and then coated with a second, outer plastic layer such as a polyolefin layer like polypropylene containing carbon black applied over the silane-containing layer and then the silane-containing layer is cured under the influence of moisture or water wherein a layer containing water or a layer which through chemical reaction splits off water may be use or by treatment in hot water or steam, wherein the Examiner takes the position that a steel tube reads upon the limitation "a heat transfer component of a condensing furnace system" (Abstract; Col. 2-4; Examples; Claims 5-8.)

Claim Rejections - 35 USC § 103

4. Claims 2, 8 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergstrom et al. The teachings of Bergstrom et al are discussed above. Though Bergstrom et al

Art Unit: 1773

teach that the silane-containing layer may be applied to the steel tube utilizing various coating methods, Bergstrom et al do not teach that applying a rolling pressure as instantly claimed, however it is well known in the art, particularly in extrusion methods which Bergstrom et al reference, a rolling pressure is applied to the coating layer to press the layer against the substrate to be coated to facilitate adhesion of the coating layer to the substrate and hence would have been obvious to one having ordinary skill in the art at the time of the invention. With respect to Claim 8, Bergstrom et al further teach that silane-grafted polyolefins exhibit good adhesion to metals such as steel as well as polar plastics. Though Bergstrom et al do not specifically teach the second plastic layer of the coated steel is a polar plastic, given the above teaching, Bergstrom et al provides a suggestion to one skilled in the art to utilize a polar plastic such as polyamide, polyester, etc. given that the silane-grafted polyolefin layer provides good adhesion with steel as well as these polar plastics. With respect to Claims 13-14, Bergstrom et al do not teach a thickness as instantly claimed, however, it is well established in the art that adhesive layer thickness is a result-effective variable wherein one skilled in the art at the time of the invention would have been motivated to utilize routine experimentation to determine the optimum adhesive layer thickness to provide the desired adhesion between two specific materials to be adhered based on the desired end use of the laminate.

Response to Arguments

5. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. EP 0 311 722, EP 0 321 258, JP 53049079A, Ohmae et al (USPN 5,075,382) and

Art Unit: 1773

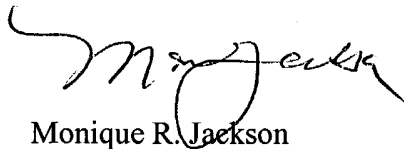
Wey et al (USPN 5,994,474) all teach a water-curable, silane-modified ethylene terpolymer adhesive that provides excellent adhesion to metals as well as polyolefins.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 571-272-1508.

The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 571-272-1516. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Monique R. Jackson
Primary Examiner
Technology Center 1700
August 9, 2004